

REMARKS

This is intended as a full and complete response to the Office Action dated February 10, 2009 having a shortened statutory period for response set to expire on May 11, 2009. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1, 3-16, 39-40, 42-77 and 79-99 are pending in the application and remain pending following entry of this response. Applicants submit that the amendments do not introduce new matter.

Further, Applicants are not conceding in this application that those amended and canceled claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution of the claimed subject matter. Applicants respectfully reserve the right to pursue these (pre-amended or canceled claims) and other claims in one or more continuations and/or divisional patent applications.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 3-11, 42-43 and 48-54 are rejected under 35 U.S.C. § 102(e) as being anticipated by *Myles et al.* (U.S. Patent No. 6,879,579, hereinafter, “*Myles*”). Applicants respectfully traverse these rejections.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In this case, *Myles* does not teach each and every element recited in the pending claims. For example, *Myles* fails to teach or suggest “a random access channel used by registered and

unregistered terminals for system access”, as recited in amended claim 1.

As described in Figure 4 and paragraph [0038] of the publication of the present application, random access channels may include a “fast” random access channel (F-RACH) and a “slow” random access channel (S-RACH). User terminals that are registered and can compensate for their round trip delays (RTD) may use an F-RACH, while both registered and unregistered user terminals may use an S-RACH. *Myles* does not teach or suggest any type of random access channels for use by both registered and unregistered mobile stations.

In contrast, *Myles* teaches that registered terminals use one type of access channel, while unregistered terminals use another type of access channel. For example, *Myles* teaches a hub station allocating up-link slots to registration channels and data channels (Table 1A, row “chan_id”). *Myles* also teaches that an unregistered mobile station waits for a hub to issue a registration slot to register (Figure 11b, column 12 line 64 to column 13 line 3), thus, unregistered mobile stations cannot use data channels for registration. *Myles* further teaches any (registered) mobile stations with queued data units can contend for access to a data channel with the empty state (column 11 lines 7-9). However, *Myles* does not teach or suggest that a registered mobile station can use registration channels dedicated for use by unregistered mobile stations. Therefore, *Myles* does not teach or suggest a contention based random access channel used by registered and unregistered terminals, as set forth in amended claim 1, and claims dependent thereon.

In the Office Action, the Examiner refers to a channel in the “empty-state” as corresponding to the “second random access channel used by either registered or unregistered terminals for system access” as recited in claim 1. Applicants respectfully submit, however, that a channel in the “empty-state” only allows use by *registered* terminals that have data queued. In column 4, line 45 cited by the Examiner as teaching “any mobile station can have access” Applicants respectfully submit that, in this instance empty state of the channel means only that the channel is not “owned” or “reserved” by a mobile station and thus “any mobile station” may use the channel. As stated in Table 1A in column 9, channels available for use by unregistered stations, on the other hand, are always in the empty state “(Note: the registration channel is always in empty-state)”. However, *Myles* does not teach that any channels are ever available for

use by registered and unregistered terminals, as recited in the claims.

For at least these reasons, Applicants submit claims 1, 3-11, 42-43 and 48-54 are allowable and respectfully request withdrawal of this rejection.

Claims 15-16, 39-40, 66 and 83 are rejected under 35 U.S.C. § 102(e) as being anticipated by *Noerpel et al.* (U.S. Publication 2003/0153320, hereinafter, “*Noerpel*”). Claims 15-16, 39-40, 55-58, 62-66, 68-69, 71-73, 79-83, 87-88, 90-92 and 97-99 are rejected under 35 U.S.C. § 102(e) as being anticipated by *Chang et al.* (U.S. Patent No. 6,532,225, hereinafter, “*Chang*”).

The Examiner mistakenly equates the terms “synchronized” and “unsynchronized” used in *Noerpel* with the terms “registered” and “unregistered” used in the claims. *Noerpel* fails to mention any sort of registration. Applicants respectfully submit that the synchronization taught in is different than registration. As described in the present application, registration is performed with the system to obtain a MAC ID that may be used for further system access. *Noerpel* teaches only that synchronization may be performed to resolve “timing uncertainty between user terminals within a given spot beam.”

Further, Applicants respectfully submit that neither *Noerpel* nor *Chang* teach a MIMO communication system. Thus, neither *Noerpel* nor *Chang* teach transmitting messages utilizing a MIMO transmission scheme, as recited in the claims.

For at least these reasons, Applicants submit claims 15-16, 39-40, 66 and 83 are allowable over *Noerpel* and respectfully request withdrawal of this rejection and submit claims 15-16, 39-40, 55-58, 62-66, 68-69, 71-73, 79-83, 87-88, 90-92 and 97-99 are allowable over *Chang* and respectfully request withdrawal of this rejection.

Claims 15-16, 39-40, 55-58, 62-66, 68-69, 71-73, 79-83, 87-88, 90-92 and 97-99 are rejected under 35 U.S.C. § 102(e) as being anticipated by *Chang et al.* (U.S. Patent No. 6,532,225, hereinafter, “*Chang*”).

Claim Rejections - 35 U.S.C. § 103

Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Myles* in view of *du Crest et al.* (U.S. Publication 2004/0047292, hereinafter, “*du Crest*”). Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Myles* in view of *Caldwell et al.* (U.S. Publication No. 2002/0122393, hereinafter, “*Caldwell*”). Claims 14 and 44-47 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Myles* in view of *Fukuda* (U.S. Patent No. 6,956,813). Claims 59-61, 74-77 and 93-96 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chang* in view of *Fukuda*. Claims 67, 84 and 86 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chang* in view of *Lee et al.* (U.S. Patent No. 7,453,844, hereinafter, “*Lee*”). Claims 70 and 89 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chang* in view of *du Crest*. Claim 85 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chang* in view of *Hunt* (U.S. Patent No. 6,868,079).

These claims each depend, directly or indirectly, from independent claims which are allowable for at least reasons discussed above, and that these additional references fail to overcome the shortcomings described above. Accordingly, Applicants submit these claims are also allowable and respectfully request withdrawal of these rejections.

Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

CONCLUSION

Therefore, for at least the reasons presented above with respect to all of the pending claims subsequent to entry of this response, Applicants assert that all claims are patentably distinct from all of the art of record. All objections and rejections having been addressed, it is respectfully submitted that this application is in condition for allowance and a Notice to that effect is earnestly solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Charge Statement: For this application, the Commissioner is hereby authorized to charge any required fees or credit any overpayment to Deposit Account 17-0026.

Respectfully submitted,
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